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**BEFORE THE ARIZONA CORPORATION COMMISSION**

DOUG LITTLE, CHAIRMAN

BOB STUMP, COMMISSIONER

BOB BURNS, COMMISSIONER

TOM FORESE, COMMISSIONER

ANDREW TOBIN, COMMISSIONER

Arizona Corporation Commission

DOCKETED

MAR 18 2016

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IN THE MATTER OF THE APPLICATION OF  
ARIZONA WATER COMPANY, AN ARIZONA  
CORPORATION, FOR A DETERMINATION  
OF THE FAIR VALUE OF ITS UTILITY  
PLANT AND PROPERTY, AND FOR  
ADJUSTMENTS TO ITS RATES AND  
CHARGES FOR UTILITY SERVICE  
FURNISHED BY ITS WESTERN GROUP AND  
FOR CERTAIN RELATED APPROVALS.

Docket No.: W-01445A-15-0277

**ABBOTT LABORATORIES'  
NOTICE OF FILING DIRECT RATE  
DESIGN TESTIMONY**

Abbott Laboratories, through its undersigned counsel, hereby provides notice of filing the Direct  
Testimony of Dan Neidlinger in the above-referenced matter.

RESPECTFULLY SUBMITTED this 18<sup>th</sup> day of March 2016.

RYLEY CARLOCK & APPLEWHITE

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1 An original and thirteen copies of the  
2 foregoing filed this 18<sup>th</sup> day of  
3 March 2016 with:

4 Docket Control  
5 Arizona Corporation Commission  
6 1200 W. Washington St.  
7 Phoenix, Arizona 85007

8 Copies of the foregoing mailed this  
9 18<sup>th</sup> day of March 2016 to:

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By 

1 ARIZONA CORPORATION COMMISSION

2 ARIZONA WATER COMPANY

3 DOCKET NO. W-01445A-15-0277

4  
5 Direct Testimony of Dan L. Neidlinger

6 Cost of Service and Rate Design

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**I. BACKGROUND**

**Q1. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.**

A1. My name is Dan L. Neidlinger. My business address is 3020 North 17<sup>th</sup> Drive, Phoenix, Arizona. I am President of Neidlinger & Associates, Ltd., a consulting firm specializing in utility rate economics.

**Q2. PLEASE DESCRIBE YOUR PROFESSIONAL QUALIFICATIONS AND EXPERIENCE.**

A2. A summary of my professional qualifications and experience is included in the attached Statement of Qualifications. In addition to providing testimony before the Arizona Corporation Commission ("ACC" or "Commission"), I have presented expert testimony before regulatory commissions and agencies in Alaska, California, Colorado, Guam, Idaho, New Mexico, Nevada, Texas, Utah, Wyoming and the Province of Alberta, Canada.

**Q3. ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

A3. I am appearing on behalf of Abbott Laboratories ("Abbott") located in Casa Grande, Arizona. Abbott receives most of its water service from Arizona Water Company's ("AWC" or "Company") Pinal Valley System under AWC's 6" Industrial Rate Schedule. A detailed description of Abbott's operations, its water treatment system and its water conservation program is provided in the direct testimony of Mr. Kevin Kemp, Manager of Manufacturing Engineering for the Casa Grande plant. Abbott is AWC's largest customer and one of the largest water customers of any investor owned water utility in Arizona.

**Q4. DID YOU PRESENT TESTIMONY ON BEHALF OF ABBOTT ON COST OF SERVICE AND RATE DESIGN ISSUES IN ONE OF THE COMPANY'S PREVIOUS RATE CASES, ACC DOCKET 08-0440?**

A4. Yes, I did. I also provided consulting assistance to Abbott on cost of service and rate design issues in its most recent case, ACC Docket No. 10-0517.

1 **Q5. WHY HAS THE COMPANY FILED FOR INCREASED RATES AT THIS TIME?**

2 A5. As summarized on the attached Exhibit DLN-1, the Company's return on rate base for the Western  
3 Group has declined from the 8.44% finding in Docket No. 10-0517 to 3.50% for the test year ended  
4 December 31, 2014. This decline is primarily attributable to a 48% decrease in operating income and a  
5 27% increase in rate base.

6 **Q6. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS CASE?**

7  
8 A6. My testimony addresses the results of the cost of service study ("COSS") prepared by the  
9 Company for the Pinal Valley System and the Company's related rate design and class revenue  
10 recommendations. More specifically, I will discuss the Company's costing and pricing of the 6" meter  
11 rate for Abbott served under the Large Industrial Class. I will also provide rate design recommendations  
12 and comment on the Nitrate and CAP surcharges proposed by the Company. I did not perform a revenue  
13 requirements study and accordingly have no opinion on this issue.

14 **II. COST OF SERVICE**

15 **Q7. WAS THE COMPANY REQUIRED, PURSUANT TO ACC RULE R14-2-103, TO FILE A**  
16 **COSS FOR EACH OF ITS OPERATING SYSTEMS?**

17  
18 A7. Yes. All large utilities, including AWC, are required to file a COSS supporting their rate design  
19 proposals for each class of customer. When Rule 14-2-103 was adopted in the 1970s, the Commission  
20 recognized the need for such studies in setting fair and equitable rates. Although the Rule has been  
21 amended from time to time since its initial adoption, the COSS series of schedules remain today an  
22 important component of any rate filing package for all large utilities, including water utilities.

23 **Q8. WHY IS COST OF SERVICE IMPORTANT?**

24 A8. In a regulated environment, cost of service is the single-most important criterion in the  
25 development of revenues by customer class and the development of rates that will produce those  
26 revenues. If rates are not cost-based, the inevitable results are subsidies among classes of customers and  
27 customers within a class. Although other factors, such as continuity, simplicity and stability, are valid  
28

1 considerations in the rate design process, the primary guideline should be cost of service. Rates  
2 developed based on cost of service are equitable because each customer pays its fair share of the utility's  
3 total cost.

4 **Q9. DID YOU REVIEW OF COSS AND RATE DESIGN TESTIMONY OF COMPANY**  
5 **WITNESS JOEL REIKER?**

6 A9. Yes. I am in general agreement with Mr. Reiker's costing and rate design proposals for the various  
7 customer classes except, as I shall discuss later, for his cost allocations to the Large Industrial class in  
8 the Pinal Valley system that includes Abbott. Abbott's water usage represents approximately 78% of  
9 that class.

10  
11 At the bottom of page 7 of his testimony, beginning at line 25, Mr. Reiker accurately points out that the  
12 owners of utilities are forced to "pick up the tab" or subsidize the utilities' customers should revenues  
13 fall short of the utilities' cost of service. There is a corollary with respect to setting revenue targets  
14 among customer classes. Some classes of customers may be forced to "pick up the tab" for other classes  
15 of customers should revenue targets fall short of their cost of service. As discussed later, Abbott is  
16 currently providing large subsidies to other classes of customers.

17 **Q10. BRIEFLY DESCRIBE THE NATURE OF WATER SERVICE PROVIDED TO ABBOTT**  
18 **BY AWC.**

19 A10. Abbott receives over 98% of its water requirements through a 6" non-potable water main and a  
20 dedicated well. These facilities were financed primarily through contributions from Abbott to AWC.  
21 The remaining 2% of water used by Abbott is sourced through a 6" standby meter and a 1" meter.  
22 Except for these ancillary deliveries, Abbott does not use AWC's water distribution system.  
23 Accordingly, Abbott presents a unique set of costing and pricing issues that need to be addressed in this  
24 case.  
25  
26  
27  
28

1 **Q11. DOES THE COMPANY'S COSS FOR THE PINAL VALLEY SYSTEM ACCURATELY**  
2 **REFLECT THESE UNIQUE COSTING ISSUES?**

3 A11. No. The Company's COSS for the Pinal Valley system allocated distribution costs to the Large  
4 Industrial class, including arsenic-related costs, assuming all of the customers in that class used the  
5 distribution system. The largest component of the cost allocation to this class, 65%, is commodity-  
6 related. The commodity allocation factors for the Pinal Valley system included Abbott's water usage.  
7 As previously stated, Abbott represents 78% of the total commodity usage for the Large Industrial class  
8 but does not use the distribution system. Accordingly, the Large Industrial class was allocated a very  
9 large amount of potable treatment and distribution system costs that properly belong to other customers.  
10 The rate base allocation to the Large Industrial class is similarly affected but to a lesser extent since the  
11 commodity component of rate base is 36%.

12 **Q12. DID YOU ASK THE COMPANY TO PREPARE AN ANALYSIS THAT MORE**  
13 **ACCURATELY REFLECTS THE COST TO SERVE ABBOTT?**  
14

15 A12. Yes and the Company did prepare a stand-alone cost of service analysis that better reflects the cost  
16 to serve Abbott. Before discussing that analysis, however, I would like to demonstrate the effect on  
17 Abbott's annual water bill of the allocation of one major cost component, arsenic costs, to the Large  
18 Industrial class and ultimately to Abbott. The water Abbott buys from AWC is not treated for arsenic  
19 yet the Company's present and proposed rates for Abbott both include these costs. Abbott should  
20 receive either a bill credit or lower fixed rates in recognition of this improper cost assignment.

21 **Q13. HAVE YOU PREPARED AN ANALYSIS THAT SHOWS THE MAGNITUDE OF THIS**  
22 **ARSENIC CREDIT AND ITS IMPACT ON ABBOTT'S ANNUAL BILL?**  
23

24 A13. Yes. A calculation of the arsenic credit is shown on Exhibit DLN-2. At proposed rates, the credit  
25 is \$0.23 per 1,000 gallons. At present rates the credit is slightly smaller at \$0.21 per 1,000 gallons due  
26 to a lower current return on arsenic rate base.

27 The impact on Abbott's annual water bills is significant. As shown on Exhibit DLN-3, at present rates  
28 the annual credit is \$78,125 resulting in a 13.33% bill reduction. At proposed rates, the annual credit

1 increases to \$85,566 resulting in an annual bill (\$586,480) that is essentially equivalent to the current  
2 annual bill of \$586,240. Abbott has in the past and continues to subsidize other customers for the costs  
3 incurred by the Company for arsenic treatment. These subsidies need to be addressed in this case.

4 **Q14. PLEASE DISCUSS THE COMPANY'S STAND-ALONE COST OF SERVICE ANALYSIS**  
5 **FOR ABBOTT THAT YOU EARLIER REFERENCED.**

6 A14. The Company prepared, at my request, a cost of service study that addresses Abbott's unique  
7 service characteristics. This study is provided in the Appendix attached to this testimony. The results of  
8 the study are summarized on Exhibit DLN-4.

9  
10 The Company's cost analysis is a blending of test year operating expenses and utility plant together with  
11 projected capital expenditures required to service Abbott through the year 2018. Included in the  
12 development of the \$1.03 million rate base shown on Exhibit DLN-4 are \$1.25 million of main  
13 replacements in years 2015 and 2018. These mains were originally constructed through contributions  
14 from Abbott and recorded as CIAC in the Company's plant records.

15 The cost study shows a revenue requirement for Abbott of \$365,700 using the Company's requested  
16 return on rate base of 8.93%. This amount is \$220,540 or 37.62% less than current annual billings to  
17 Abbott and represents a very large revenue subsidy to other customer classes.

18 **Q15. EXPLAIN THE ADJUSTMENTS TO THE COMPANY'S STUDY SHOWN IN THE**  
19 **SECOND COLUMN OF EXHIBIT DLN-4.**

20 A15. The adjustments to the Company's stand-alone cost of service study eliminate the effect of the  
21 projected \$1.25 million of main replacements in 2015 and 2018 thereby showing a calculation of  
22 Abbott's revenue requirement using test year operating expenses and rate base. On a test year basis,  
23 Abbott's revenue requirement is only \$217,626 or \$368,614 (62.86%) less than current annual billings.  
24 This revenue requirement results in price per acre foot (AF) of water of \$191 which is essentially  
25 equivalent to the Company's average sales rate of \$192 per AF during the test year for non-potable CAP  
26 water.  
27  
28



1 **Q16. WHAT ARE YOUR CONCLUSIONS BASED ON THE PRECEEDING ANALYSES?**

2 A16. Based on my review of the Arsenic issue and the results of the Company's stand-alone cost study,  
3 I conclude that a rate decrease for Abbott is necessary at this time to begin reducing the large subsidies  
4 provided by Abbott under present rates. Because of its unique service characteristics and non-typical  
5 cost of service profile, a separate rate should be designed for Abbott that is 15% lower than current rates  
6 for the Large Industrial class.

7  
8 **III. RATE DESIGN**

9 **Q17. HAVE YOU DESIGNED A RATE FOR ABBOTT THAT IS ACHIEVES YOUR**  
10 **RECOMMENDED 15% RATE REDUCTION?**

11 A17. Yes. My proposed rate design for Abbott is provided on Exhibit DLN-5. The rate would be  
12 applicable to all non-potable water deliveries. I am recommending an increase in the monthly basic  
13 service charge from the current \$800 to \$1,200. In that regard, I agree with Mr. Reiker's rate design  
14 testimony. Increases in basic service charges are needed for all of the Company's rates to improve fixed  
15 cost recovery percentages. The recommended commodity rate is \$1.30 per thousand gallons or \$0.25  
16 per thousand less than the current rate of \$1.55. As indicated on Exhibit DLN-5, Abbott's total annual  
17 billings are reduced by \$88,207 but Abbott would continue to provide, as shown by the Company's cost  
18 study, over \$132,000 in revenue subsidies to other customers at these lower rates.

19 **Q18. HOW WOULD OTHER CLASSES OF CUSTOMERS IN THE PINAL VALLEY SYSTEM**  
20 **BE AFFECTED BY YOUR RECOMMENDED REDUCTION IN ABBOTT'S RATES?**

21 A18. I suggest that the amount recovered from other classes be based on revised commodity allocators  
22 for each class. Exhibit DLN-6 shows the effect of allocating Abbott's \$88,207 revenue reduction to  
23 other classes using revised commodity allocation factors. The impact is small. Except for the Large  
24 Industrial class, all classes would receive an increase of less than 1%.  
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**IV. OTHER RATEMAKING ISSUES**

**Q19. THE COMPANY HAS PROPOSED A NUMBER OF RATE ADJUSTORS IN THIS CASE INCLUDING A \$0.073 PER THOUSAND GALLONS SURCHARGE FOR CAP WATER. DO YOU SUPPORT THIS SURCHARGE?**

A19. I support, in general, the funding of the Company's CAP program since, in my view, it is a vital resource necessary to fulfill customers' needs now and into the future. I have not, however, analyzed the economics of the Company's proposal in this regard and accordingly have no opinion with respect to the level of the proposed surcharge.

**Q20. WHAT ABOUT THE COMPANY'S PROPOSED SURCHARGE FOR NITRATES?**

A20. This is a surcharge needed to meet federal water quality standards that parallels the arsenic surcharge. The bulk of Abbott's water purchases from AWC should be exempt from this surcharge as they are from the arsenic surcharge since Abbott's non-potable water supply is not treated for nitrate.

**Q21. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

A21. Yes, it does.